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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/525,659

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Jan Aa Christensen

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01/23/2009

CP Kelco US, INC
1000 PARKWOOD CIRCLE
SUITE 1000
ATLANTA, GA 30339

EXAMINER

WHITE, EVERETT NMN

ART UNIT

PAPER NUMBER

1623

MAIL DATE

DELIVERY MODE

01/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/525,659	Applicant(s) CHRISTENSEN, JAN AA	
	Examiner EVERETT WHITE	Art Unit 1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 16-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION
Election/Restrictions

1. Applicant's election without traverse of Group I, Claims 1-15 in the reply filed on October 22, 2008 is acknowledged.
2. Claims 16-30 are withdrawn from consideration.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 7, the phrase "the buffer solution" lacks antecedent basis since Claims 5 and 1, from which Claim 7 is dependent, do not recite a "buffer solution".

In Claim 11, lines 1 and 2, and lines 2 and 3, the text "pectin containing pectin containing plant starting material" in both locations should be changed to - - pectin containing plant starting material - -.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuusisto et al (WO 99/10384) in view of Ehrlich (US Patent No. 5,567,462).

Applicant claims a method for controlling pectin esterase activity in a pectin containing plant starting material wherein said plant starting material is a fruit starting material before extraction of pectin from said pectin containing plant starting material comprising the steps of: obtaining a pectin containing plant starting material, contacting said pectin containing plant starting material with an acidified water having a pH of about 3.2 to about 3.9 at a temperature of $\leq 70^{\circ}\text{C}$ and recovering a treated pectin containing plant starting material.

The Kuusisto et al WO publication discloses a biotechnical pre-treatment of sugar beet pulp by lowering the pH to a value between 3.5 and 4.5, which can further be used for hydrolysis or extraction of pectin and related products. The Kuusisto et al publication discloses organic acids such as formic acid, lactic acid, acetic acid and/or mixtures thereof as being effective for the acid solution. Kuusisto et al discloses the pretreatment being carried out at about 60°C (see the abstract, page 2, lines 26-30 and page 3, lines 3 of the Kuusisto et al publication). The pH range, organic acid and temperature disclosed in the Kuusisto et al publication embraces the pH range, organic acid and temperature disclosed in instant Claims 1-3 and 5-8. The pre-treatment method described in the Kuusisto et al publication embraces the instantly claimed method of controlling pectin esterase activity in a pectin containing plant starting material since the method thereof is carried out by contacting a pectin containing plant material with an acid solution as recited in the instant claims.

The instantly claimed method for controlling pectin esterase activity in a pectin containing plant starting material differs from the method of the Kuusisto et al publication by claiming that the plant thereof is a fruit starting material.

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The Ehrlich patent shows that procedures for treatment of sugar beet in pectin processing procedures can be carried out using other types of pectin containing raw materials or substituted with other types of pectin containing raw materials. See column 4, first paragraph where the Ehrlich patent discloses raw materials obtained from lemon, orange, citrus fruit and apple, for example, can be substituted for sugar beet, which suggest substitution of the sugar beet in the Kuusisto et al publication and embraces the specific pectin containing plant starting material recited in instant Claims 12-15. The Ehrlich patent also suggests substitution of inorganic acids for organic acid for processing pectin containing raw materials. See column 4, lines 37 to 43 of the Ehrlich patent, wherein food acids such as citric acid and acetic acid are disclosed as alternatives for hydrochloric acid, sulfuric acid and nitric acid in the processing of pectin containing plant raw materials, which embraces the use of the inorganic acids recited in instant Claims 3 and 4. The Ehrlich patent further teaches solubilization of the pectin containing raw material in an aqueous acid solution before extracting the pectin (see column 2, lines 47-65) which embraces a pectin containing material pretreatment technique. The solubilization may be performed at room temperature (see column 2, line 57), which embraces the temperatures recited in instant Claims 9 and 10.

One of ordinary skill in this art would be motivated to combine the teaching of the Kuusisto et al publication with the teaching of the Ehrlich patent since both references discloses preparation of pectin from pectin containing plant raw material.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the sugar beet used in the pre-treatment method of subjecting pectin containing raw material to an acid solution which allows for control of pectin esterase activity of the Kuusisto et al publication with pectin containing fruit starting materials in view of the recognition in the art, as evidenced by the Ehrlich patent, that such materials are natural in that their production does not require addition of any material other than alcohols and acids.

Summary

7. Claims 1-15 are rejected; Claims 16-30 are withdrawn from consideration.

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Examiner's Telephone Number, Fax Number, and Other Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Everett White whose telephone number is 571-272-0660. The examiner can normally be reached on 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia A. Jiang can be reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Everett White/

Examiner, Art Unit 1623

/Shaojia Anna Jiang/

Supervisory Patent Examiner, Art Unit 1623